
बोन मील, स्टीम्ड — विशिष्टि
(पहला पुनरीक्षण)

Bone Meal, Steamed —
Specification
(First Revision)

ICS 10.030.10, 65.080

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Price Group 4

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Soil Quality and Fertilizers Sectional Committee had been approved by the Food and Agriculture Division Council.

Bones subjected to the action of steam under pressure can be easily crushed to fine powder. The resulting product known as steamed bone meal finds its largest use as a phosphatic fertilizer. Prolonged steaming of bones immersed in water in a digester, involves extraction of fat, glue and nitrogenous organic matter. This product, known as steamed digested bone meal contains smaller amounts of nitrogen and correspondingly higher amount of phosphates.

This standard was originally published in 1956. In this revision, the standard has been brought out in the latest style and format of the Indian Standards and references to Indian Standards have been updated. Further, amendment No. 1 to this standard has also been incorporated.

In the preparation of this standard, due consideration has been given to *the Fertilizer (Control) Order (FCO)*, 1985 and *Legal Metrology (Packaged Commodities) Rules*, 2011. However, this standard is subject to restrictions imposed under these, wherever applicable.

The composition of the committee responsible for the formulation of this standard is listed in Annex B.

For the purpose of deciding, whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***BONE MEAL, STEAMED — SPECIFICATION***(First Revision)***1 SCOPE**

This standard prescribes the requirements for Bone Meal, Steamed, used as fertilizer.

2 REFERENCES

The standards listed below contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below:

<i>IS No.</i>	<i>Title</i>
IS 853 : 2023	Bone meal, raw — Specification (<i>first revision</i>)
IS 460 (Part 1) : 2020	Test sieves — Specification: Part 1 Wire cloth test sieves (<i>fourth revision</i>)

3 REQUIREMENTS**3.1 Description**

The material shall be in the form of particles and free flowing, without undue amount of fluffy particles or foreign matter.

3.2 Particle Size

Not less than 90 percent by mass of the material shall pass through 1.18 mm IS Sieve [*see IS 460 (Part 1)*].

3.3 The material shall comply with the requirements given in Table 1, when tested according to the methods prescribed in Annex B of IS 853.

4 PACKING AND MARKING**4.1 Packing**

The material shall be packed in the manner as agreed to between the purchaser and the supplier. Each bag shall be securely closed.

4.2 Marking

Each bag shall bear legibly the following information:

- Name and type of the material;
- Name of the manufacturer;
- Net quantity of material in kg;
- Batch/code number;
- Month and year of manufacturing; and
- Any other information as required under *Fertilizers (Control) Order 1985*.

4.2.1 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

5 SAMPLING

5.1 Representative samples of the material shall be drawn as prescribed in Annex A of IS 853.

Table 1 Requirements for Bone-Meal, Steamed
(Clause 3.3)

Sl No.	Characteristic	Requirements	Method of Test, Ref to	
			Ref to Annex	Ref to Clause No. of Annex B in IS 853
(1)	(2)	(3)	(4)	(5)
i)	Free moisture, percent by mass, <i>Max</i>	7.0	A	—
ii)	Total phosphates (as P ₂ O ₅) percent by mass, (dry basis), <i>Min</i>	22.0	—	B-4
iii)	Available phosphates (as P ₂ O ₅) soluble in 2 percent citric acid solution, percent by mass, (dry basis), <i>Min</i>	16.0	—	B-5

ANNEX A*(Clause 3.3)***DETERMINATION OF FREE MOISTURE****A-1 PROCEDURE**

A-1.1 Weigh accurately about 5 g of the material and dry in an oven at $100^{\circ}\text{C} \pm 2^{\circ}\text{C}$ to constant weight.

A-1.2 Calculation

Free moisture, percent by weight = $100 \times \frac{(B-C)}{(B-A)}$

where

A = weight of the empty bottle;

B = weight of the bottle and the material before drying; and

C = weight of the bottle and the material after drying.

ANNEX B*(Foreword)***COMMITTEE COMPOSITION**

Soil Quality and Fertilizers Sectional committee, FAD 07

<i>Organization</i>	<i>Representative(s)</i>
Natural Resource Management, New Delhi	DR SURESH KUMAR CHAUDHARI (<i>Chairperson</i>)
Bidhan Chandra Krishi Vishwavidyalaya, West Bengal	PROF B. MANDAL PROF G. C. HAZRA (<i>Alternate</i>)
Central Fertilizers Quality Control and Training Institute, Faridabad	SHRI SHYAM BABU
Consumer Guidance Society of India, Mumbai	DR SITARAM DIXIT
FCI Aravali Gypsum and Minerals India Limited, Jodhpur	BRIGADIER AMAR SINGH RATHORE SHRI S. S. SHEKHAWAT (<i>Alternate</i>)
Fertilizer Association of India, New Delhi	DR R. K. TEWATIA
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Gujarat State Fertilizer & Chemicals Limited, Vadodara	SHRI V. N. GOTHI SHRI K. G. KORANT (<i>Alternate</i>)
ICAR-Central Soil Salinity Research Institute, Karnal	DR A. K. RAI
Indian Agricultural Research Institute Library, New Delhi	HEAD (SOIL SCIENCE) HEAD (MICROBIOLOGY) (<i>Alternate</i>)
Indian Farmers Fertiliser Cooperative (IFFCO), New Delhi	DR. RADHA KRISHNAN NAYAK
Indian Institute of Soil Science, Bhopal	DR ASHOK K. PATRA DR M. C. MANNA (<i>Alternate</i>)
Indorama India Private Limited, Kolkata	SHRI B. B. SINGH SHRI BIDHAN SINHA (<i>Alternate</i>)
Insecticides (India) Limited, Delhi	DR LOKESH CHANDER ROHELA DR RITIKA PATHAK (<i>Alternate</i>)
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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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